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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet | 1 | of | 2

Complete If Known	
Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number - Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-6,857,487	02-22-2005	Galloway	
		US- 6,857,486	02-22-2005	Chitwood, et al.	
		US- 6,854,533	02-15-2005	Galloway	
		US- 6,848,517	02-01-2005	Wardley	
		US-6,840,322	01-11-2005	Haynes	
		US-6,752,211	06-22-2004	Dewey, et al.	
		US-6,745,834	06-08-2004	Davis, et al.	
		US-6,725,924	04-27-2004	Davidson, et al.	
		US-6,708,769	03-23-2004	Haugen, et al.	
		US-6,668,684	12-30-2003	Allen, et al.	
		US-6,666,274	12-23-2003	Hughes	
		US-6,655,460	12-02-2003	Bailey, et al.	
		US-6,651,737	11-25-2003	Bouligny	
		US-6,585,040	07-01-2003	Hanton, et al.	
		US-6,536,522	03-25-2003	Birckhead, et al.	
		US-6,464,011	10-15-2002	Tubel	
		US-6,458,471	10-01-2002	Lovato, et al.	
		US-6,433,241	09-03-2002	Juhasz, et al.	
		US-6,378,633	04-30-2002	Moore	
		US- 6,371,203	04-16-2002	Frank, et al.	

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Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] - Number[4] - Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
		EP 0479583	04-08-1992	Gonalez, et al.		
		EP 1148206	10-24-2001	Scott, et al.		
		GB 2381809	05-14-2003	Ohmer		
		GB 2347445	09-06-2000	Metcalfe, et al.		
		WO 99/24689	05-20-1999	Collins		
		WO 99/04135	01-28-1999	Collins		
		WO 97/05360	02-13-1997	Collins		
		WO 03/074836	09-12-2003	Philip		

Examiner Signature		Date Considered	8/8/05

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 2

Complete if Known	
Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.[1]	Document Number Number - Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-6,237,684	05-29-2001	Bouligny, Jr., et al.	
		US- 6,217,258	04-17-2001	Yamamoto, et al.	
		US- 6,012,529	01-11-2000	Mikolajczyk, et al.	
		US- 5,878,815	03-09-1999	Collins	
		US- 5,348,095	09-20-1994	Worrall, et al.	
		US- 5,069,297	12-03-1991	Krueger	
		US- 4,962,819	10-16-1990	Bailey, et al.	
		US- 3,760,894	09-25-1973	Pitifer	
		US- 2,978,047	04-04-1961	DeVaan	
		US- 2005-0000691	01-06-2005	Giroux, et al.	
		US- 2004-0262013	12-30-2004	Tilton, et al.	
		US- 2004-0251055	12-16-2004	Shahin, et al.	
		US- 2004-0251050	12-16-2004	Shahin, et al.	
		US- 2004-0251025	12-16-2004	Giroux, et al.	
		US- 2004-0245020	12-09-2004	Giroux, et al.	
		US- 2004-0244992	12-09-2004	Carter, et al.	
		US- 2004-0226751	11-18-2004	McKay, et al.	
		US- 2004-0221997	11-11-2004	Giroux, et al.	
		US- 2004-0216924	11-04-2004	Pietras, et al.	
		US- 2004-0216892	11-04-2004	Giroux, et al.	
		US-2004-0016575	01-29-2004	Shahin, et al.	

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Examiner Signature		Date Considered	8/18/05

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 1

Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	Vail, III
Group Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525
Submission Date	June 24, 2005

U.S. PATENT DOCUMENTS

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FT	A1	US-5,191.932	03/09/1993	Seefried, et al	
	A2	US-5,141,063	08/25/1992	Quesenbury	
1	A3	US-4,765,416	08/23/1988	Bjerking, et al	
1	A4	US-3,760,894	09/25/1973	Pitifer	
	A5	US-3,117,636	01/14/1964	Wilcox, et al	
FT	A6	US-3,006,415	10/31/1961	Burns, et al	
FT	A7	US-2,978,047	04/04/1961	DeVann	
	A8				
	A9				
	A10				
	A11				
	A12				

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FT	B1	GB 2,294,715	08/05/1996	Tibbitts		
FT	B2	GB 881,358	11/01/1961	Kammerer		
FT	B3	716,761	10/13/1954	Standard Oil Development		
FT	B4	709,365	05/19/1954	Standard Oil Development		
	B5					

Examiner Frank Tsay Date Considered 8/8/05

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 1

Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	Vail, III
Group Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525
Submission Date	July 27, 2004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1				
	A2				
	A3				
	A4				
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	A12				
	A13				
	A14				
	A15				
	A16				
	A17				
	A18				

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[2]
FT	C1	Rotary Drilling, The Drill Stem, Unit I, Lesson 3, Second Edition, The University of Texas at Austin, Austin, Texas	
FT	C2	Rotary Drilling Series, The Rotary Rig and Its Components, Unit I, Lesson 1, Third Edition, The University of Texas at Austin, Austin, Texas	

Examiner Frank Tsay Date Considered 8/8/05

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
Group Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525
Customer No.	36735
Submission Date	January 11, 2005

Sheet 1 of 12

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	US-2,167,338	07-25-1939	Murcell	
	A2	US-2,228,503	01-14-1941	Boyd, et al.	
	A3	US-2,370,832	03-06-1945	Baker	
	A4	US-2,379,800	07-03-1945	Hare	
	A5	US-2,414,719	01-21-1947	Cloud	
	A6	US-2,720,267	10-11-1955	Brown	
	A7	US-2,741,907	06-06-1997	Genender, et al.	
	A8	US-3,006,415	10-31-1961	Burns, et al.	
	A9	US-3,041,901	07-03-1962	Knights	
	A10	US-3,054,100	09-11-1962	Jones	
	A11	US-3,090,031	05-14-1963	Lord	
	A12	US-3,111,179	11-19-1963	Albers, et al.	
	A13	US-3,117,636	01-24-1964	Wilcox, et al.	
	A14	US-3,124,023	03-10-1964	Marquis, et al.	
	A15	US-3,131,769	05-05-1964	Rochemont	
	A16	US-3,193,116	07-06-1965	Kenneday, et al.	
	A17	US-3,419,079	12-31-1968	Current	
	A18	US-3,548,936	12-22-1970	Kilgore, et al.	

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	B1	CA 2 335 192	11-30-2001	Kozak		
	B2	DE 3 523 221	02-01-1987	Svetozar		
	B3	DE 3 918 132	12-14-1989	Eriksson		
	B4	EP 0 474 481	03-11-1992	Moody		
	B5	EP 0 087 373	08-31-1983	Plaquin		

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First Named Inventor	William B. Vail, III
Group Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525
Customer No.	36735
Submission Date	January 11, 2005

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	A19	US-3,552,507	01-05-1971	Brown	
	A20	US-3,552,848	01-05-1971	Van Wagner	
	A21	US-3,566,505	03-02-1971	Martin	
	A22	US-3,602,302	08-31-1971	Kluth	
	A23	US-3,606,664	09-21-1971	Weiner	
	A24	US-3,635,105	01-18-1972	Dickmann, et al.	
	A25	US-3,680,412	08-01-1972	Mayer, et al.	
	A26	US-3,691,825	09-19-1972	Dyer	
	A27	US-3,696,332	10-03-1972	Dickson, Jr., et al.	
	A28	US-3,776,320	12-04-1973	Brown	
	A29	US-3,776,991	12-04-1973	Marcus	
	A30	US-3,848,684	11-19-1974	West	
	A31	US-3,857,450	12-31-1974	Guier	
	A32	US-3,913,687	10-21-1975	Gyongyosi, et al.	
	A33	US-4,054,332	10-18-1977	Bryan, Jr.	
	A34	US-4,095,865	06-20-1978	Denison, et al.	
	A35	US-4,127,927	12-05-1978	Hauk, et al.	
	A36	US-4,194,383	03-25-1980	Huzyak	

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	B6	EP 0 162 000	11-21-1985	Hamilton		
	B7	EP 0 171 144	02-12-1986	Stringfellow, et al.		
	B8	EP 0 285 386	10-05-1988	Haney		
	B9	EP 0 426 123	05-08-1991	Reis, et al.		
	B10	EP 0 525 247	02-03-1993	Willis		

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Sheet 3 of 12

Application Number	10/678,731
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First Named Inventor	William B. Vail, III
Group Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525
Customer No.	36735
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	A37	US-4,227,197	10-07-1980	Nimmo, et al.	
	A38	US-4,241,878	12-30-1980	Underwood	
	A39	US-4,277,197	07-07-1981	Bingham	
	A40	US-4,280,380	07-28-1981	Eshghy	
	A41	US-4,311,195	01-19-1982	Mullins, II	
	A42	US-4,392,534	07-12-1983	Miida	
	A43	US-4,407,378	10-04-1983	Thomas	
	A44	US-4,427,063	01-24-1984	Skinner	
	A45	US-4,437,363	03-20-1984	Haynes	
	A46	US-4,445,734	05-01-1984	Cunningham	
	A47	US-4,449,596	05-22-1984	Boyadjieff	
	A48	US-4,494,424	01-22-1985	Bates	
	A49	US-4,529,045	07-16-1985	Boyadjieff, et al.	
	A50	US-4,570,706	02-18-1986	Pugnet	
	A51	US-4,592,125	06-03-1986	Skene	
	A52	US-4,593,773	06-10-1986	Skele	
	A53	US-4,605,268	08-12-1986	Meador	
	A54	US-4,625,796	12-02-1986	Boyadjieff	

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Examiner Initials*	Cite No.[1]	Foreign Patent Document Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	B11	EP 0 589 823	03-03-1994	Busink, et al.		
	B12	EP 0 659 975	06-28-1995	Nagaoka, et al.		
	B13	EP 0 790 386	08-20-1997	Newton, et al.		
	B14	EP 0 881 354	04-24-1998	Vercaemen, et al.		
	B15	EP 0 962 384	12-08-1999	Poldervaart		

Examiner Date Considered

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 4 of 12

Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
Group Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525
Customer No.	36735
Submission Date	January 11, 2005

U.S. PATENT DOCUMENTS

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	A55	US-4,646,827	03-03-1987	Cobb	
	A56	US-4,649,777	03-17-1987	Buck	
	A57	US-4,667,752	05-26-1987	Berry, et al.	
	A58	US-4,676,312	06-30-1987	Mosing, et al.	
	A59	US-4,683,962	08-04-1987	True	
	A60	US-4,691,587	09-08-1987	Farrand, et al.	
	A61	US-4,709,599	12-01-1987	Buck	
	A62	US-4,709,766	12-01-1987	Boyadjieff	
	A63	US-4,738,145	04-19-1988	Vincent, et al.	
	A64	US-4,742,876	05-10-1988	Barthelemy, et al.	
	A65	US-4,759,239	07-26-1988	Hamilton, et al.	
	A66	US-4,765,401	08-23-1988	Boyadjieff	
	A67	US-4,773,689	09-27-1988	Wolters	
	A68	US-4,775,009	10-04-1988	Wittrisch, et al.	
	A69	US-4,781,359	11-01-1988	Matus	
	A70	US-4,788,544	11-29-1988	Howard	
	A71	US-4,791,997	12-20-1988	Krasnov	
	A72	US-4,793,422	12-27-1988	Krasnov	

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Examiner Initials*	Cite No.[1]	Foreign Patent Document Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	B16	EP 1 256 691	11-13-2002	Hawkins, et al.		
	B17	FR 2 841 293	12-26-2003	Bouygues Offshore		
	B18	GB 2 115 940	09-14-1983	Plaquin		
	B19	GB 2 224 481	09-05-1990	Voeten		
	B20	GB 2 275 486	04-15-1993	Elane, et al.		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 5 of 12

Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
Group Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525
Customer No.	36735
Submission Date	January 11, 2005

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A73	US-4,800,968	01-31-1989	Shaw, et al.	
	A74	US-4,806,928	02-21-1989	Veneruso	
	A75	US-4,813,493	03-21-1989	Shaw, et al.	
	A76	US-4,836,064	06-06-1989	Slator	
	A77	US-4,867,236	09-19-1989	Haney, et al.	
	A78	US-4,878,546	11-07-1989	Shaw, et al.	
	A79	US-4,901,069	02-13-1990	Veneruso	
	A80	US-4,936,382	06-26-1990	Thomas	
	A81	US-4,962,579	10-16-1990	Moyer, et al.	
	A82	US-5,009,265	04-23-1991	Bailey, et al.	
	A83	US-5,036,927	08-06-1991	Willis	
	A84	US-5,141,063	08-25-1992	Quesenbury	
	A85	US-5,176,518	01-05-1993	Hordijk, et al.	
	A86	US-5,191,932	03-09-1993	Seefried, et al.	
	A87	US-5,224,540	07-06-1993	Streich, et al.	
	A88	US-5,233,742	08-10-1993	Gray, et al.	
	A89	US-5,245,265	09-14-1993	Clay	
	A90	US-5,251,709	10-12-1993	Richardson	

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Examiner Initials*	Cite No.[1]	Foreign Patent Document Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	B21	GB 2 294 715	08-05-1996	Tibbitts		
	B22	GB 2 349 401	11-01-2000	Roberts, et al.		
	B23	GB 2 352 747	07-02-2001	Davis, et al.		
	B24	GB 2 357 530	06-27-2001	Schulze-Beckinghausen		
	B25	GB 2 372 765	09-04-2002	Head		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 6 of 12

Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
Group Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525
Customer No.	36735
Submission Date	January 11, 2005

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	A91	US-5,271,468	12-21-1993	Streich, et al.	
	A92	US-5,305,839	04-26-1994	Kalsi, et al.	
	A93	US-5,332,043	07-26-1994	Ferguson	
	A94	US-5,351,767	10-04-1994	Stogner, et al.	
	A95	US-5,388,651	02-14-1995	Berry	
	A96	US-5,394,823	03-07-1995	Lenze	
	A97	US-5,433,279	07-18-1995	Tassari, et al.	
	A98	US-5,494,122	02-27-1996	Larsen, et al.	
	A99	US-5,501,286	03-26-1996	Berry	
	A100	US-5,503,234	04-02-1996	Clanton	
	A111	US-5,540,279	07-30-1996	Branch, et al.	
	A112	US-5,542,472	08-06-1996	Pringle, et al.	
	A113	US-5,542,473	08-06-1996	Pringle, et al.	
	A114	US-5,553,672	09-10-1996	Smith, Jr., et al.	
	A115	US-5,577,566	11-26-1996	Albright, et al.	
	A116	US-5,645,131	07-08-1997	Trevisani	
	A117	US-5,706,894	01-13-1998	Hawkins, III	
	A118	US-5,791,410	08-11-1998	Castille, et al.	

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Examiner Initials*	Cite No.[1]	Foreign Patent Document Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	B26	GB 709 365	05-19-1954	Standard Oil Development		
	B27	GB 716 761	10-13-1954	Standard Oil Development		
	B28	GB 881 358	11-01-1961	Kammerer, et al.		
	B29	GB 2 350 137	11-22-2000	Baugh, et al.		
	B30	RU 2 079 633	05-20-1997	Abdrakhmanov		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 7 of 12

Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
Group Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525
Customer No.	36735
Submission Date	January 11, 2005

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	A119	US-5,803,191	09-08-1998	Mackintosh	
	A120	US-5,813,456	09-29-1998	Milner, et al.	
	A121	US-5,836,395	11-17-1998	Budde	
	A122	US-5,839,515	11-24-1998	Yuan, et al.	
	A123	US-5,850,877	12-22-1998	Albright, et al.	
	A124	US-5,907,664	05-25-1999	Wang, et al.	
	A125	US-5,909,768	06-08-1999	Castille, et al.	
	A126	US-5,971,086	10-26-1999	Bee, et al.	
	A127	US-5,984,007	11-16-1999	Yuan, et al.	
	A128	US-5,988,273	11-23-1999	Monjure, et al.	
	A129	US-6,056,060	05-02-2000	Abrahamsen, et al.	
	A130	US-6,070,500	06-06-2000	Dlask, et al.	
	A131	US-6,079,498	06-27-2000	Lima, et al.	
	A132	US-6,079,509	06-27-2000	Bee, et al.	
	A133	US-6,142,545	11-07-2000	Penman, et al.	
	A134	US-6,161,617	12-19-2000	Gjedebo	
	A135	US-6,173,777	01-16-2001	Mullins	
	A136	US-6,199,641	03-13-2001	Downie, et al.	

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	B31	WO 00/39429	07-06-2000	Pietras		
	B32	WO 00/39430	07-06-2000	Pietras		
	B33	WO 00/46484	08-10-2000	Van Buren, et al.		
	B34	WO 00/66879	11-09-2000	Hawkins, et al.		
	B35	WO 02/081863	10-17-2002	Simpson, et al.		

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Sheet 8 of 12

Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
Group Art Unit	3672
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	A137	US-6,223,823	05-01-2001	Head	
	A138	US-6,227,587	05-08-2001	Terral	
	A139	US-6,275,938	08-14-2001	Bond, et al.	
	A140	US-6,290,432	09-18-2001	Exley, et al.	
	A141	US-6,305,469	10-23-2001	Coenen, et al.	
	A142	US-6,309,002	10-30-2001	Bouligny	
	A143	US-6,349,764	02-26-2002	Adams, et al.	
	A144	US-6,360,633	03-26-2002	Pietras	
	A145	US-6,367,566	04-09-2002	Hill	
	A146	US-6,374,506	04-23-1993	Clay	
	A147	US-6,392,317	05-21-2002	Hall, et al.	
	A148	US-6,429,784	08-06-2002	Beique, et al.	
	A149	US-6,431,626	03-13-2002	Bouligny	
	A150	US-6,446,723	09-10-2002	Ramons, et al.	
	A151	US-6,622,796	09-23-2003	Pietras	
	A152	US-6,648,075	11-18-2003	Badrak, et al.	
	A153	US-6,688,394	02-10-2004	Ayling	
	A154	US-6,691,801	02-17-2004	Juhasz, et al.	

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Examiner Initials*	Cite No.[1]	Foreign Patent Document Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	B36	WO 02/44601	06-06-2002	Appleford, et al.		
	B37	WO 03/087525	10-23-2003	Vincent, et al.		
	B38	WO 93/07358	04-15-1993	Eiane, et al.		
	B39	WO 96/18799	06-20-1996	Stokka		
	B40	WO 98/05844	02-12-1998	Stokka		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 9 of 12

Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
Group Art Unit	3672
Examiner Name	Frank Tsay
Attorney Docket Number	WEAT/0525
Customer No.	36735
Submission Date	January 11, 2005

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A155	US-6,698,595	03-02-2004	Norell, et al.	
	A156	US-6,725,938	04-27-2004	Pietras	
	A157	US-6,742,596	06-01-2004	Haugen	
	A158	US-6,742,606	06-01-2004	Metcalfe, et al.	
	A159	US-2002/0070842	04-17-2003	Bailey, et al.	
	A160	US-2002/0108748	08-15-2002	Keyes	
	A161	US-2003/0029641	02-13-2003	Meehan	
	A162	US-2003/0056947	03-27-2003	Cameron	
	A163	US-2003/0164250	09-04-2003	Wardley	
	A164	US-2003/0164251	09-04-2003	Tulloch	
	A165	US-2003/0173090	09-18-2003	Cook, et al.	
	A166	US-2003/0213598	11-20-2003	Hughes	
	A167	US-2004/0003944	01-08-2004	Vincent, et al.	
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Examiner Initials*	Cite No.[1]	Foreign Patent Document Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
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	B42	WO 98/32948	07-30-1998	Pietras		
	B43	WO 99/35368	07-15-1999	Lohbeck, et al.		
	B44	WO 99/41485	08-19-1999	Pietras		
	B45	WO 99/58810	11-18-1999	Abrahamsen, et al.		

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Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
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	A173	US-2004/0108142	06-10-2004	Vail, III	
	A174	US-2004/0112646	06-17-2004	Vail	
	A175	US-2004/0118613	06-24-2004	Vail	
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	A179	US-2004/0140128	07-22-2004	Vail	
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	A181	US-2004/0216925	11-04-2004	Metcalfe, et al.	
	A182	US-2004/0112646	06-17-2004	Vail	
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	A185	US-			
	A186	US-			
	A187	US-			
	A188	US-			
	A189	US-			
	A190	US-			

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	B46	FR 2741907	06-06-1997	Leighton		
	B47					
	B48					
	B49					
	B50					

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Application Number	10/678,731
Filing Date	October 2, 2003
First Named Inventor	William B. Vail, III
Group Art Unit	3672
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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[2]
		DETLEF HAHN, FRIEDHELM MAKOHL, and LARRY WATKINS, Casing-While Drilling System Reduces Hole Collapse Risks, Offshore, Pages 54, 56, and 59, February 1998	
		YAKOV A. GELFGAT, MIKHAIL Y. GELFGAT and YURI S. LOPATIN, Retractable Drill Bit Technology – Drilling Without Pulling Out Drillpipe, Advanced Drilling Solutions Lessons From the FSU; June 2003; Vol. 2, pps. 351-464	
		TOMMY WARREN, SPE, BRUCE HOUTCHENS, SPE, GARRET MADELL, SPE, Directional Drilling With Casing, SPE/IADC 79914, Tesco Corporation, SPE/IADC Drilling Conference 2003	
		LaFleur Petroleum Services, Inc., "Autoseal Circulating Head," Engineering Manufacturing, 1992, 11 Pages	
		Valves Wellhead Equipment Safety Systems, W-K-M Division, ACF Industries, Catalog 80, 1980, 5 Pages	
		Canrig Top Drive Drilling Systems, Harts Petroleum Engineer International, February 1997, 2 Pages	
		The Original Portable Top Drive Drilling System, TESCO Drilling Technology, 1997	
		MIKE KILLALEA, Portable Top Drives: What's Driving The Marked?, IADC, Drilling Contractor, September 1994, 4 Pages	
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		500 or 650 HCIS Top Drive, Powerful Hydraulic Compact Top Drive Drilling System, TESCO Drilling Technology, April 1998, 2 Pages	
		Product Information (Sections 1-10) CANRIG Drilling Technology, Ltd., September 18, 1996	

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